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TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT (Under 37 CFR 1.97(b) or 1.97(c))	Docket No. 13273

In Re Application Of: **Yutaka Yokoyama**

Serial No.	Filing Date	Examiner	Group Art Unit
09/467,812	December 20, 1999	Unassigned	2713

Title:

APPARATUS FOR AND METHOD OF VARIABLE BIT RATE VIDEO CODING

Address to:
Assistant Commissioner for Patents
Washington, D.C. 20231

37 CFR 1.97(b)

1. ☒ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application; within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; or before the mailing date of a first Office Action on the merits, whichever event occurs last.

37 CFR 1.97(c)

2. ☐ The Information Disclosure Statement submitted herewith is being filed after three months of the filing of a national application, or the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; or after the mailing date of a first Office Action on the merits, whichever occurred last but before the mailing date of either:

   1. a Final Action under 37 CFR 1.113, or
   2. a Notice of Allowance under 37 CFR 1.311,

   whichever occurs first.

Also submitted herewith is:

☐ a certification as specified in 37 CFR 1.97(e);

OR

☐ the fee set forth in 37 CFR 1.17(p) for submission of an Information Disclosure Statement under 37 CFR 1.97(c).

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Payment of Fee

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

☐ A check in the amount of is attached.

☒ The Assistant Commissioner is hereby authorized to charge and credit Deposit Account No. **19-1013/SSMP** as described below. A duplicate copy of this sheet is enclosed.

- ☐ Charge the amount of
- ☒ Credit any overpayment.
- ☒ Charge any additional fee required.

Certificate of Transmission by Facsimile*

I certify that this document and authorization to charge deposit account is being facsimile transmitted to the United States Patent and Trademark Office (Fax. No.) on (Date)

Signature

Typed or Printed Name of Person Signing Certificate

Certificate of Mailing by First Class Mail

I certify that this document and fee is being deposited on **November 5, 2001** with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Signature of Person Mailing Correspondence

Michelle Mustafa

Typed or Printed Name of Person Mailing Correspondence

***This certificate may only be used if paying by deposit account.**

Signature

Dated: **November 5, 2001**

Paul J. Esatto, Jr.
Registration No. 30,749
SCULLY, SCOTT, MURPHY & PRESSER
400 Garden City Plaza
Garden City, NY 11530
(516) 742-4343

PJE:dg

cc:

Translator's Report/Comments

Your ref: G1589 (13273) **Your order of (date):**

In translating the above text we have noted the following apparent errors/unclear passages which we have corrected or amended:

Page/para/line*	Comment
Parag 1/line 2	"Code quantity distribution" - this is a literal rendering of the Japanese, although we suspect "quantization" may be meant. According to our references the term quantization is usually rendered differently in Japanese.

* This identification refers to the source text. Please note that the first paragraph is taken to be, where relevant, the end portion of a paragraph starting on the preceding page. Where the paragraph is stated, the line number relates to the particular paragraph. Where no paragraph is stated, the line number refers to the page margin line number.

Docket No. 13273

UNITED STATES PATENT AND TRADEMARK OFFICE

VERIFICATION OF A TRANSLATION

I, the below named translator, hereby declare that:

My name and post office address are as stated below;

That I am knowledgeable in the English language and in the Japanese language, and that I believe the English translation of the marked portion of the attached Japanese document is true and complete.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: October 11, 2001

Full name of the translator: Nigel David CROSSAN

Signature of translator : 

For and on behalf of RWS Group plc

Post Office Address : Europa House, Marsham Way,
Gerrards Cross, Buckinghamshire,
England.

Notification of reasons for refusal [excerpt]

The applicants have made assertions in a written opinion:

"As mentioned in the previous "written opinion" (submitted on May 14, 2001), as large code quantities are assigned to images with a high degree of encoding difficulty and small code quantities are assigned to images with a low degree of encoding difficulty, during code quantity distribution based on an average degree of difficulty, excessively allocated code is barely suppressed when images with a low degree of encoding difficulty are input directly after there has been a succession of images with a high degree of encoding difficulty, and the image quality is degraded.

With this in mind, in the invention according to the present application, the deletion of excessively allocated code is controlled also using the degree of complexity of directly preceding image units by employing a degree of encoding difficulty in the vicinity of the encoding times. In other words, in the encoder etc. according to the present invention, the degree of difficulty of encoding is measured on the basis of encoded images, and, on the basis of the degree of difficulty of the encoding of those images whose encoding has been completed, the degree of difficulty of encoding of images which are to be input

from there onwards is inferred and the allocation of code quantities is carried out on the basis of these degrees of difficulty.

More specifically, as disclosed in paragraphs [0088] to [0090] of the specification according to the present application, the degree of complexity of the GOP (Group of Picture) units, is calculated on the basis of the results of the encoding and this is taken as the degree of complexity for the next GOP code allocation. In this update processing of the degree of complexity, the degree of complexity of the directly preceding GOP is taken as an assumed value without further processing (the code quantity allocation is carried out using the degree of complexity of the directly preceding image unit)."

The configuration corresponding to the above is not disclosed in all of the claims, for example it cannot be understood from claim 1 that the objects which are encoded within a set quantization range are images which are to be input from there onwards.

We would like the assertions of the written opinion to be based on what is disclosed in the claims.

Controlling the quantization range of the next frame

using the frame information of the previous frame is disclosed in cited documents 1 - 4. If the commonality of the quantization control problem is considered, it is possible to use the configuration(s) of cited documents 5 - 7.

List of cited documents, etc.

1. Japanese Laid-open Patent Application H10-215460
2. Japanese Laid-open Patent Application H10-155152
3. Japanese Laid-open Patent Application H10-23433
4. Japanese Laid-open Patent Application H10-164588